NOAA'S R&D HPCS ACQUISITION
SOLICITATION NUMBER DG1330-05-RP-1038
QUESTIONS AND ANSWERS
AMENDMENT 0005

Question 118. Section C.8.4 Configuration and Change Management Plan states that, THE GOVERNMENT DESIRES THAT THE CONTROL BOARD AND CONFIGURATION MANAGEMENT PROCESS INTEGRATE INTO EXISTING GOVERNMENT CONTROL BOARDS AND PROCESSES WHERE APPLICABLE. Please provide examples of processes, procedures, and Control Board and Configuration Management functions currently performed at each R&D laboratory today.

Answer: NCEP's current R&D system is integrated with its Operational system. For Operational codes strict configuration control and job flow procedures are in place and a daily operations meeting is used to coordinate activities. R&D activites make use of Operational notification processes and coordinate activities at a weekly meeting of R&D users, Operational users and the Contractor.

For Boulder, Government staff and affiliates meet with vendor staff weekly. When maintenance windows are proposed, written plans are required and reviewed by the Government.

In Princeton, the Government and Contracting staff work together on configuration management issues. The configuration management process and change control boards have been put together by the Government and the Contractor. The tools and processes used for configuration management (including patch management, change control, documentation, and risk management/mitigation) continue to evolve based upon Government and Contractor requirements, changes in technologies, and new industry best practices.

Question 163. In section C.5.2.6.1 the Government provides data generation rates for workstreams 1 through 3 (1.4 TB/day, 2.6 TB/day, and 1 TB/day, respectively) for a baseline level of performance for these workstreams. Do these data generation rates correspond to the current Origin LSC baseline or to the Altix LSC baseline to be installed in April 2005?

If these data generation rates correspond to the Origin baseline, for the purpose of projecting data generation into the future, should we assume that the Origin baseline has a relative performance level of 1.0, and the Altix baseline has a relative performance level of 1.8, as stated in appendix A (C.10.1.3, page 40)? Such an assumption is necessary because the Government did not provide throughput benchmarks (section J.1.4.2.4) for the Origin baseline and therefore our performance baseline comparisons can only be made to the Altix baseline.

If this assumption is correct, then the data generation rates expected from the Altix system beginning in April 2005 would be 1.5 (1.8 raised to the 0.7 power) times the values stated above, or 2.1 TB/day, 3.9 TB/day, and 1.5 TB/day respectively -- correct?

Answer: Answer to follow

Question 216. For sub-floor branch circuit conduit in BLDR-1, can computer grade blue flex conduit (Ultratight) which terminates on the circuit breaker panel enclosure be utilized (rather than the current arrangement of Greenfield terminating in a j-box)?

Answer: Electrical distribution upgrades in BLDR-1 can be performed prior to equipment installation. The cost for any changes to the electrical distribution facility in BLDR-1 of the nature mentioned above will have to be held back from the contract and transferred to GSA by NOAA.

Question 245. 1. We interpret the answer to question 166 to say that if a single resource is proposed to meet the needs of (for example) WS1, 2, and 3 that for the purpose of both the SLT calculation and the Throughput Benchmark the combined resource *must* be proportioned according to the funding profile in C.4.3 Table 1 - that is exactly 4/14ths of the resource for WS1, 6/14ths for WS2, and 4/14ths for WS3. Is this correct?

If it is correct may we assume that the resource can be divided either spatially or temporally for the SLT calculation (e.g. WS1 uses 4/14ths of the resource for all of the year or all of the resource for 4/14ths of the year)?

2. Now suppose that a workstream (e.g. WS1) runs so well that 16 instances run in the same time as the required 8 instances for the Throughput Benchmark when constrained to using the 4/14ths of the combined resource. And suppose further that applying the unused part of that 4/14ths of the resource from WS1 to the 6/14ths of the resource intended for WS2 allows WS2 to run twice as fast, thereby resulting in a significant decrease in the total of the Throughput benchmark for WS1, 2 and 3 combined.

Are we to understand from the answer to question 166 that the government requires the combined resource to be proportioned as the ratio of funding streams even if the combined Throughput Benchmarks on the combined resource run faster if the resource is proportioned on a performance ratio rather then a funding ratio?

If this is not the intent, may the offeror proportion the machine in such a way so as to minimize the combined Throughput Benchmarks of 1, 2, and 3 rather then by the financial ratio in C 4.2 Table 1?

3. Must the Throughput Benchmark used in the SLT calculation (C.6.1.2) be run in exactly the same manner as reported for the Throughput Benchmark (J.1.4.2) result, or for example may the SLT calculation be done assuming multiple instances of Throughput Benchmarks are run simultaneously (thus potentially yielding a higher SLT result)?

4. Which result will be weighted higher in evaluating an offering - the Throughput Benchmark or the SLT number - and in what ratio?

Answer: Answer to follow.

Question 247. Amendment 2 changed paragraph C.5.2.4 to allow the HSMS nearline tier to be either disk or tape. The HSMS benchmark instructions at J.1.4.4.1 still specifically refer to

locating all files on tape. Will the HSMS benchmark change to reflect the possibility of using disk as a portion of the near-line tier?

Answer: Amendment 0004 updated the HSMS benchmark to reflect the possibility of using disk.

Question 251. Amendment 2, C.11 and the recent answer to Question 112 indicate that the FSL subsystem HSMS configuration is being maintained by the current vendor for the first year of the new contract (i.e., through 9/6/2006). Please provide answers to the following questions:

a. Does the Government intend to continue to add data to the AML/J during FY 2006? If so, please provide an estimate of the data volume that will be stored in the AML/J on 9/6/2006. If not, please provide an estimate of the data volume that will be stored in the AML/J on 10/01/05.

b. During FY2006, does the Government intend to operate both the legacy and new LSC elements in parallel?

c. Assuming the contractor proposes a new HSMS solution for the FSL subsystem, please clarify whether or not the contractor has any requirement to provide access from the legacy LSC to the new HSMS during FY2006.

d. Assuming the contractor proposes a new HSMS solution for the FSL subsystem, please clarify whether or not the contractor has any requirement to provide access from the new LSC to the AML/J during FY2006.

e. Assuming that a contractor proposes to migrate data from the AML/J archive to a new HSMS solution, when can that migration begin (at the beginning of the new contract, or when the AML/J is available as GFE at the end of FY2006)?

f. Per Table V, section C.5.4.3 of the RFP (High bandwidth connectivity to model and observation data), the FSL workstreams require access to approximately 1 TB/day of model and observation data. If the Government intends to operate both the legacy and new LSC elements in parallel in FY2006, does it intend to provide separate feeds of these model and observation data to the two systems?

Answer: a. It is expected that another 50 to 100TB will be added during FY2006 to the legacy HSMS.

b. Yes, hence the lack of availability of BLDR-1 until FY2007. The cost to operate the legacy system will be funded outside the new contract.

c. The new HSMS should have either NFS or SCP access to other facilities within Boulder, including the legacy LSC.

d. The current StoreNext solution allows for NFS and SCP access, and that will suffice.

e. Under amendment 4 the GFE of the AML/J has moved up to the beginning of FY2006. The migration, if necessary, may commence then.

f. The data is available locally on the Boulder LAN. The current LSC has adequate bandwidth to the LAN. The new system will be provided connectivity to the LAN (and thus the WAN) if equipment is sited in BLDR-2. In short, new equipment sited in Boulder will be provided adequate bandwidth to support workstreams 7-9.

Question 252. In the answer to question 112, the government stated that the PRTN site will have installed a total of slightly more then 7PB of data in 5 StorageTek silos using 9840, 9940 and Titanium media. Are all 5 of the StorageTek silos, tape drives and media to be provided as GFE with regards to the RDHPCS acquisition. Also, can the government please provide us with the number of Titanium drives, and the number of Titanium media that will be in place at that time.

Answer: Answer to follow.

Question 254. When and how will diagrams of the Goddard space be made available? How much raised floor space will be available, and how is it configured? How much non-raised-floor space will be available, and how is it configured?

Answer: Diagrams were provided at the site visit. Additional copies can be provided by requesting them through the CO. There is 5,500 square feet of contiguous raised floor and no non-raised floor.

Question 261. RE: Goddard Facility -

1) How much cooling will be available from existing air handlers at the time of occupancy?

2) Above and beyond the cooling available from existing air handlers, how much cooling is available from the existing infrastructure to support additional air handlers (how much additional chiller capacity is there)?

Answer: 1) There are six Leibert air handlers. Each can provide 33 tons of cooling.
2) Please see the answer to Site Question #366.

Question 262. RE: Goddard Facility -

1) Will the Offeror be responsible for the cost of electricity consumed by systems housed at Goddard? If so, how will this be calculated, and what is the current rate being paid for electricity by the facility?

2) How much power will be available at the time of occupancy from existing PDUs? How many receptacles (and what types) are available on existing PDUs?

3) Above and beyond power available from existing PDUs, how much power is available from the existing infrastructure to support additional PDUs?

4) How much UPS power will be available at the time of occupancy?

5) How much back-up generator power will be available at the time of occupancy?

Answer: 1) The Offeror is required to include the cost of electricity consumed by systems housed at Goddard. The cost of electricity should be assumed to be 8.1 cents per KWH beginning in FY07, with a 3% per annum inflation rate.
2) There are no existing PDUs
3) Please see the answer to Site Question #366
4) There is no UPS available
5) There are no back up generators available

Question 264. RE: PRTN Power - (1) What is the voltage of the feed off of Route 1? (2) What is the size of the generator that was part of the infrastructure tour? (3) How reliable is power off of Route 1?

Answer: (1) 13,200 volts as indicated in Section C.11.3.1 (Referenced as C.10.8.1 in Amendment 2); (2) 75 kW to provide backup power to a chilled water pump, as indicated in Section C.11.3.4 (Referenced as C.10.8.4 in Amendment 2); (3) Section C.11.7.1 (Referenced as C.10.12.1 in Amendment 2) indicates that, during the period from FY02 to FY04, operator logs showed 29 power fluctuation episodes (14 in FY02, 11 in FY03, and 4 in FY04). The logs also showed that, in all but one of these episodes, the HPCS was able to continue to operate through the power fluctuation, indicating that the UPSs and PDUs were able to maintain conditioned power to the computer systems, and the chillers either continued to operate or else shutdown and then restarted automatically.

Questions 267, 268, and 269. RE: Clarification Requested for Storage and Media at GFDL Site - There appear to be significant discrepancies in relation to the amount of storage that is to be installed, and available as GFE during the delivery schedule of the R & D systems. For instance, section C.11 Appendix C, Government Furnished Equipment (GFE) lists the Princeton site as having 4 StorageTek Powderhorn installed, and a total of 15,000 tape cartridges. Assuming that each of the SILOs can hold approximately 5500 cartridges, is it to be assumed that there are 7,000 slots that are currently empty. The answer to question 112 implies that a fifth SILO is being installed, and that a total of 7PBs of data will reside in storage at the Princeton site at the start of FY 2007 that needs to be retained for the nine year life of the R & D contract. Why would a fifth silo be required, if it currently has 7,000 empty cartridge slots. Could the Government provide an accounting of total media by type, total number of tape drives by type, total number of slots in robotic tape systems, and total number of free slots anticipated to be in place at the start of FY 2007.

Answer: Answer to follow.

Question 276. RE: PRTN UPS Issues - (1) What is the ride-through capability for the UPSs for the current systems? (2) What about the shelving currently located in the UPS Room in the north corner of the Computer Room?

Answer: (1) Section C.11.7.2 (Referenced as C.10.12.2 in Amendment 2) states the following: "Based on panel read-outs, the UPS systems for the current system, which is in

transition to the April 2005 upgrade, provide a ride-through for the computer systems of 16 minutes on the 500-KVA UPS and 25 minutes on the 225-KVA UPS". Battery replacements to the 500-kVA UPS and additional system load are expected to change these ride-through times over the next month (See Answer to Question #290). (2) This is currently shared between Raytheon, SGI and the Government and can be removed if the space is needed.

Question 283. PRTN LAN Connectivity - What LAN connectivity is available for additional processors - 100 Mbps port? Gigabit ports?

Answer: The Cisco Catalyst 6509 listed in the Princeton GFE section will be cross-connected via bonded etherchannel to the core LAN router. The LAN router will be connected to distribution switches. Connectivity to desktop machines and core servers is utilizing both 100Mbps and 1Gbps networking. The Government anticipates that it will continue to grow its 1Gbps infrastructure to eventually replace its 100Mbps infrastructure.

Besides what is listed in the GFE, there is no additional networking available for additional HPC computational processors.

Question 295. PRTN NLR Connection / High-Speed Network Access - (a.) Will a National Lambda Rail (NLR) connection be available? When? Will it terminate in the Computer Room? (b.) Is any other high-speed network available in the area? What is the approximate distance from the GFDL site?

Answer: Please refer to questions 136, 174. Amendment 0004 provided a revised Networking Section.

Question 298. PRTN Equipment DeInstalled After FY2006 - On the April 2005 layout, please note the Raytheon equipment that will be de-installed at the end of FY2006.

Answer: This will be included in a revised Figure 13a (previously Figure 3a).

Question 303. GRBLT GFE List - Please provide a comprehensive list of GFE equipment, including the six (6) Liebert air handlers.

Answer: The six Leibert air handlers are the only GFE at the GRBLT site. Each unit can provide 33 tons of cooling.

Question 304. GRBLT Infrastructure Costs - Please provide exact cost/charges that vendors will be responsible for relative to power, cooling, floor-space, HVAC, and networking (WAN).

Answer: The WAN cost is dependent on the level of service requested (dedicated versus shared via campus service). The cost of electricity should assumed to be 8.1 cents per KWH beginning in FY07, with a 3% per annum inflation rate. The cost of floor space is $130K per annum beginning in FY07.

Question 305. GRBLT Space - Is the vendor responsible for square footage cost at the government-provided NASA facility? If so, what fraction?

Answer: Answer to follow.

Question 306. GRBLT Security - What are the specific requirements regarding security, both physical and IT, at the government-provided NASA facility? Are these the same as in the RFP as it exists now?

Answer: Answer to follow.

Question 307. GRBLT Power and Costs - What is the available power? Will power costs be the responsibility of the Offeror to pay and, if so, how would these be paid in the contract?

Answer: Please see the answer to Site Question #366. The cost of electricity should be assumed to be 8.1 cents per KWH beginning in FY07, with a 3% per annum inflation rate. The costs for power will be withheld from the contract and paid for by NOAA to NASA.

Question 309. GRBLT Chiller Capacity - What is the chiller capacity (tons) available to cool the facility?

Answer: This information is not available. However, please see the answer to Site Question #366, which is related.

Question 310. GRBLT Chiller, UPS, air handlers - 1.) If chiller, UPS, or air handler upgrades are necessary, approximately where will they be located relative to these rooms? Is there a plant or equipment area that is available for such installations by the Offeror?

2.) Is a UPS provided as GFE? Where can UPS batteries be located relative the available space? Should this be located separate from the available space?

Answer: 1.) Any air handlers, etc would need to be accommodated in the space.

2.) No UPS provided. There is no additional space available.

Question 312. GRBLT Chilled Water Available - How will chilled water be provided to the provided space? If the provided chilled water is insufficient to support the equipment in the offered space, where would another chiller and cooling tower need to be located?

Answer: Chilled water is piped from the mechanical room and supplied below the raised floor. There is no additional space being offered to locate other equipment. See answer to Q#352.

Question 314. GRBLT Equipment Height Limitations - 1.) Is the 7-foot limitation detailed in C.11.1.8 of the handout a firm limitation? Other equipment installed in this building currently exceeds this height. Note that some equipment that might be planned for installation into this space might be 93 inches in height, thereby requiring 7 inches more in height above the indicated limitation of 7 feet. 2.) Would it be possible to provide some portion of the planned raised floor remodeling that could be modified (i.e., not raised) so as to accommodate this?

Answer: 1) It may be possible to accommodate equipment that is taller than 84 inches, although such accommodation could be expensive. This will need to be worked out post-award with the selected Offeror.
2) Yes, depending on the equipment of the selected Offeror, we may decide not to raise the floor, or not raise it in part of the space. Please see the answer to Site Question #342.

Question 319. GRBLT Peak power demand - What is the peak demand for this building?

Answer: This information cannot be provided. However, please see the answer to Site Question #366 which is related.

Question 328. GRBLT Floor Load - Will the load capacity of the raised floor be upgraded when the floor is raised from 18" to 24"?

Answer: A determination of whether the floor loading needs to be increased or not is dependent on the equipment of the selected Offeror. If the floor loading must be increased, it will be done during Phase I of the site prep and the Government (NOAA) will cover the cost. The offerors do not need to account for the possible cost in their proposals.
Similarly, whether or not the floor needs to be raised from 18" to 24" is dependent on the equipment of the selected Offeror. If the floor does need to raised, it will be raised during Phase I of the site prep. The offerors do not need to account for this in their proposals.

Question 329. GRBLT Site Prep Responsibility - Who is responsible for site preparation, the Government or the Contractor?

Answer: Please see the answer to question(1) under Site Question # 352.

Question 331. GRBLT HVAC units - Please describe the six (6) HVAC units available for computers and their locations.

Answer: The six HVAC units are Leibert units. Each can provide 33 tons of cooling. This equipment is GFE.

Question 332. GRBLT Facility Availability - When will the Goddard facilities be available for use under the contract?

Answer: The room at GSFC would be available by the summer (July) of 2006.

Question 333. GRBLT Floor Space Availability - 1.) When and how will diagrams of the Goddard space be made available? 2.) How much raised floor space will be available, and how will it be configured? 3.) How much non-raised floor space will be available, and how will it be configured?

Answer: 1.) Provided at site visit and can be obtained by request to the Contracting Officer.

2.) The available space is 5500 sq. ft. and is contiguous.

3.) none

Question 334. GRBLT Power Cost - Will the Offeror be responsible for the cost of electricity consumed by the systems housed at Goddard? If so, how will it be calculated, and what is the current rate being paid for electricity by the facility?

Answer: Yes. Please see the answer to question (1) under Site Question # 262 to see how the electrical cost is to be determined.

Question 335. GRBLT Power Consumption - Will the Government provide a spreadsheet containing recent power consumption and expenditures for electric utility bills?

Answer: No. Please see the answer to question (1) under Site Question # 262.

Question 337. GRBLT Cooling - 1.) How much cooling will be available from existing air handlers at the time of occupancy? 2.) Above and beyond the cooling available from existing air handlers, how much cooling is available from the existing infrastructure to support additional air handlers? 3.) How much chiller capacity is available?

Answer: 1) Each of the existing air handlers will provide 33 tons of cooling at the time of occupancy.

2) Please see the answer to Site Question #366.

3) Please see the answer to Site Question #366.

Question 342. GRBLT Floor and Ceiling Heights - 1.) What is the current height of the space below the raised floor? 2.) What is the amount of space above the current ceiling? 3.) How much can the ceiling be raised?

Answer: 1) 18" from slab to top of floor tile.

2) 8'-0" above the current ceiling.

3) The space above the ceiling has chilled water piping, AC ducting, and comms cabling. The ceiling above the portion of the space west of the hallway can be raised approximately one foot. But, it would be difficult to raise the ceiling above the portion of the space east of the hallway because of the chilled water piping.

Question 345. GRBLT Floor Space Ambiguities - Floor space calculations: The handout indicates the dimensions of the two rooms to be 40"x75" and 40"x50", giving a total of 5000 sq. ft. of space. The hand-out indicates that 5800 sq. ft. are offered but the Contracting Officer submission indicates that 5500 sq. ft. will be available. Please clarify the amount of raised floor space that will be provided.

Answer: Answer to follow.

Question 352. GRBLT Government's Site Prep Plans - 1.) What are the Government's plans for renovating the Goddard facility to prepare it for use under this contract? 2.) Will the Government share its plans with Offerors in the RFP? 3.) Will the Government be open to suggestions on how to prepare the site from Offerors and, if so, how can this be done? 4.) When will the facility be available for occupancy?

Answer: 1) The Government will work with the selected Offeror to develop a detailed site plan, post award. The site will be ready by July 1, 2006, with equipment delivery expected no later than October 2006. The Government is contributing $1.24M to the site prep cost in order to prepare 5500 sq. ft. of contiguous space with power and cooling. Additional cost must be accounted for by the Offerors in their proposals. Please the answer to Site Question #304 for guidance.
2) See (1) above.
3) See (1) above.
4) See (1) above.

Question 353. GRBLT Floor Tile / Ceiling Height Issues - 1.) Will the Government re-use the tiles currently installed in the room? 2.) Will the Government re-use the tiles currently installed in the room? 3.) Would the Government consider designing the room such that a portion of the room will be able to accommodate equipment higher than 7 feet? [See question above]

Answer: Answer to follow.

Question 354. GRBLT Equipment Delivery Access to Room - 1.) How does the Government recommend that vendors deliver equipment to the building? 2.) Please describe the recommended path that the Contractor should follow to move equipment from the drop-off point outside of the building to the provided room? 3.) What precautions should the Contractor use in moving the equipment along this access path to the provided room?

4.) What is the maximum height (exact) of the door openings along this path? If the Contractor's equipment exceeds this height by a slight amount, are there options available to the Contractor to temporarily modify the door opening so long as the opening is restored to its original condition or better?

Answer: 1.) HPC equipment is currently delivered at grade on the north side of the building.

2.) Equipment is currently delivered through the entry doors along the atrium and through a pair of doors into the space.

3.) Aluminum plates (provided by GSFC) shall be laid down to protect flooring.

4.) Existing door head is at 7'-0". Any modifications would be expensive and difficult to do.

Question 363. The answer to RFP Q&A question 112 states, AT THE PRINCETON SITE, AS MENTIONED IN QUESTION 87, IT IS ANTICIPATED THAT BY THE START OF FY2007 THERE WILL BE SLIGHTLY MORE THEN 7PB OF DATA IN 5 STORAGETEK SILOS USING 9840, 9940 AND TITANIUM MEDIA. ALL OF THIS

DATA WILL NEED TO BE RETAINED FOR AT LEAST NINE YEARS. How many STK Titanium drives are being procured, and will these be GFE'd?

Answer: Answer to follow.

Question 365. Please clarify the maximum power that will be available to the Princeton Complex from the 2.5 MVA substation.

Answer: Answer to follow.

Question 366. The Government has provided preliminary information on the available resources at a NOAA site at the NASA Goddard Space Flight Center. This included preliminary floorspace, power, cooling and connectivity capabilities. At the Goddard site visit, it was indicated to the bidder that additional space and facility capabilities could be made available. Can the Government provide the bidder with information as to what additional floorspace, power (kva), cooling (Tons/BTUs), over and above that previously provided, could be made available?

Answer: There is 5500 sq. ft. of floor space available. Initially, 130 tons of cooling and 520 KVA of power were used as planning numbers and agreed to by GSFC. GSFC has now agreed to make available up to 260 tons of cooling and 900 KVA of power.

Question 367. Our team will require time to review and react to pending answers from NOAA. Given the technical nature of many of the unanswered questions and potential impact on our proposal, we request that NOAA grant an extension of 30 days.

Answer: The Government plans to extend the date for submission of proposals until 12:00 PM EDT on May 5, 2005. (NOTE: Amendment 0004 extended the proposal due date until 12:00 PM EDT on May 19, 2005.)

Question 368. The following questions relate to the potential use of the Goddard Site
1) Is additional square footage available at Goddard above the 5500 sq ft indicated in the 3/18 site visit?
2) If so is that space continuous?
3) Will the space be fit-up similar to the proposed fit-up of the 5500 sq ft?
4) Will additional air handlers above and beyond the five (5) 50 ton units identified in the 3/18 site visit be provided to adequately cool the expanded space?
5) Will there be an additional costs for the utilization of additional space?

Answer: 1) The total available space is 5500 sq. ft.
2) See response to Question 1 above.
3) See response to Question 1 above.
4) There are six Leibert air handlers and they are GFE. Each unit can provide 33 tons of cooling.
5) See response to Question 1 above.

Question 369. Are table of contents and acronym list desired? If so, will they be excluded from page limitations?

Answer: Offerors may include Tables of Content and an acronym list with its Technical Proposal. If submitted, the Table of Contents and acronym list will not be included in the Page count.

Question 370. This bidder was provided with revised Government facility figures from Section C.11. In Figure 2 , Schematic of Computer Room Layout for BLDR-2 facility, the area enclosed within the dashed line indicates the floor space that will be available for Offeror use in October 2005. The space delineated is approximately 700 square feet. However, Amendment 3, in section C.11.11, indicates that the available space in the BLDR facility in October 2005 as 1424 square feet. Can the Government please clarify this apparent disparity?

Answer: Please request the updated drawing; Figure 2A, from the Contracting Officer. The original 1500 sq. ft. was reduced to 1424 sq. ft. due to the addition of an egress corridor. Please refer to Question #79 for further clarification.

Question 371. In reference to data archiving, the Government's response to question 147 stated that Offerors are not required to follow either NCEPs or GFDLs model but instead must meet the terms of this new contract. Either NCEPs or GFDLs model could meet the terms of the new contract. However, in the answer to question 87, the Government stated that FSL makes two copies of each tape for reliability and disaster recovery.

1) Does the Government's answer to question 147 (which provides that the vendor can choose either NCEPs or GFDLs model in response to the RFP) only apply to the NCEP and GFDL sites, or does it also pertain to the FSL site?
2) If it does not pertain to the FSL site, then is the vendor to follow the guidance provided in the answer to question 87 which states that two copes of each tape to be made for reliability and disaster recovery purposes?

Answer: 1) The Government allows for flexibility in the solution provided by the vendor for each workstream. Certainly either GFDL's or NCEP's model would suffice for Workstreams 7-9. It may be an overengineered solution for WS 7-9, however.

2) FSL uses lower cost media than the other two sites. To ensure data integrity, two copies of each tape are made. Since this is already done at FSL, the second copy is vaulted off-site and thus serves for disaster recovery as well. We don't view this as significantly different from the NCEP model. Note that the data rates and duty-cycles associated with Workstreams 7-9 are not as high as with Workstreams 1-6. The answer to question 87 did not present requirements, but current practice (which is to use lower-cost LTO media in FSL's case).

Question 372. The Government's response to question 339, regarding the Goddard site, states that "The site will be available to the contractor in July 2006."

1) Given this response, will the bidders be allowed access to the Goddard facility prior to July 06 date to perform any unique fit-up required?
2) Alternatively will the bidder be allowed to present its requirements to the NASA construction contractor and that contractor will perform the unique fit-up to coincide with the

July 06 date?
3) If the alternative methodology is possible, what are the possible means for funding of the fit-up work (would the bidder pay NOAA, NASA, vendor, etc)?

Answer: 1) The selected Offeror will not have access to the GRBLT site prior to July 2006. 2) The selected Offeror is responsible for the unique fit-up. The fit-up plans must be submitted to GSFC Facilities Management Division for approval prior to beginning the work. The submission of the fit-up plans can be done prior to July 2006.
3) The selected Offeror should bill NOAA after performing the fit-up work. An estimate of the cost should be included in the cost proposal.

Question 373. Paragraph 2 of section J.1.1 refers to sections J.3.2.2.3 and J.3.2.3.3 but these do not exist in the section J documents that have been posted. Can NOAA please clarify where this information is provided?

Answer: The references to J.3.2.2.3 and J.3.2.3.3 in Section J are erroneous.

The sentence should read:

...as described in Sections J.1.4.2.2, J.1.4.2.3, J.1.4.3.2 and J.1.4.3.3 on ISO-9660 CDROM.

The RFP section J will be amended (Amendment 0004) to reflect this correction.

Question 374. Regarding the Liebert units at GRBLT: Are the 6 Liebert units currently installed? If so are they fed from the 800amp 480V panel or from some other panel within building? Can we get model numbers and physical locations for the Liebert units?

Answer: The six Leibert units are not installed. They will need to be purchased by NOAA, post award. The selected Offeror will need to install them where they are needed. If the equipment is water-cooled, they may not be needed.

Question 375. NASA GSFC assesses a "head tax" for each person working on the site. Is the integrator responsible for the head tax, how much is assessed per person, and how is the head tax to be paid?

Answer: GSFC assesses a "head tax" of $73.2K per person per year for each Contractor who is on site, on the average, more than 24 hours per week. If a Contractor is on site 24 hours or less per week, on the average, there is no assessment. Offerors should account for this assessment, as appropriate, in their proposals, for FY07 and beyond.

Question 376. Please clarify the requirements for model reproducibility and the relationship of reproducibility to performance measurement.

Answer: For those models designed to reproduce answers across PE counts, the requirement is simply to demonstrate reproducibility across the scaling PE counts for SOME setting of the compiler. It is known and understood that it is possible for compiler optimization to prevent PE count reproducibility. For example, even with only O2 optimization on the SGI Altix using the Intel compiler, it is known that the CM2 models of workstreams 1 and 2 do

not reproduce across PE count because the compiler is capable of introducing different order of operations depending on array sizes. For testing and development purposes, NOAA uses the Intel compiler fltconsistency option which disables certain optimizations, allowing the model to reproduce across PE counts when make_exchange_reproduce is set to true.

On the other hand, NOAA needs the performance produced by full optimization for it's production runs and tolerates order of operation differences (as also appear when make_exchange_reproduce is set to false).

Consistent with this, it is expected that all performance data measured and provided for the RFP response will be at as high an optimization as produces answers which pass the benchmark verification procedures. Indeed, all baseline data provided with the benchmark was measured at production level optimization.

In summary, the reproducibility requirement is simply:

a) demonstrate that the model can reproduce at some level of the compiler settings.

b) if reproducibility is lost as some point due to compiler optimization, explain why the optimization prevents reproducibility.

Further, it is expected that all performance data will be measured at as high a level of optimization as produces results which pass the benchmark verification

Question 377. RE: Princeton Computer Building Asbestos Study - Has an asbestos study been conducted of the Princeton Computer Building?

Answer: The Government conducted an asbestos study of the Princeton Computer Building. The initial report found non-friable asbestos as follows:

1) 12"x12" floor tiles and associated mastics throughout the Computer Building (offices, corridor, Computer Room hard pans, UPS Room, Ready Room, Ops Lounge, etc.);
2) 24"x24" beige raised computer floor tiles, which are located in limited locations in the Computer Room (under the 225 KVA UPS, for example);
3) Tan Mastic for the cove base molding;
4) Mastic found on the wall in the Transformer/Mechanical Room; and
5) Pipe saddles at the hangers supporting the pipes that measured an outside diameter around the insulation of eight inches in the mechanical room in which Chillers 1 and 3 are located. The saddles are made of friable asbestos but because of their condition and the fact that they are contained within the insulation's vapor barrier, they are considered to be in a non-friable condition.

The building materials listed in numbers one through four above are non-friable and as long as the pipe saddles remain contained within the vapor barrier, there is no need to remove them. However, if a vendor requires modification of this piping, the government, at its own expense, will replace the asbestos pipe saddles with non-asbestos ones within one month of accepting the contractor’s facility proposal in which that work is specified.

A full report by the company that conducted the survey is expected by mid-May.

The company that performed the survey told the Government that none of the asbestos found in this study is cause for serious concern. As long as the pipe saddles remain within the vapor barrier and none of the subject building materials are pulverized, most likely by sanding, cutting or drilling, the asbestos will remain in its non-friable condition. The Government will either replace all beige raised computer floor tiles or it will create an Operation and Maintenance Plan for the residual tiles in difficult to access places. If there becomes a need to remove those tiles at some point in the future, the Government shall remove them at its own expense. Although the Government has been informed that the remainder of the asbestos containing building materials are not a concern in their present non-friable condition and in the current environment, the Government is evaluating its options for either maintaining it in place or abating it.

Contractors should be aware that the Government does not, at this time, view any of these items to be a significant risk. Any required abatement that is needed for these items will be undertaken at the Government's expense.

Question 378. Has the Government determined whether or not the existing floor tiles in the offered space at GSFC have zinc whiskers? If so, how does the Government plan to deal with the zinc whiskers?

Answer: The presence of zinc whiskers has been confirmed in the existing floor tiles in the offered space at GSFC. NOAA will work with GSFC and have the floor tiles replaced, as well as the necessary cleaning above and below the floor, during Phase I of the site preparation. The Offerors do not need to account for this in their proposals.

Question 379. We assume that the paper copies of the spreadsheets providing benchmark results are separately bound and are not part of the Technical Proposal, i.e., they do not count against the 100 page limit for the Technical Volume. Is this correct? Also, please clarify whether the descriptive material requested in J.1.4.2.3 and J.1.4.3.3 is to be provided in Tab 2 of the Technical Volume or is to be provided separately as part of the benchmark materials.

Answer: All paper items associated with responses to Section J are separate from the 100 page limit for the Technical Volume. The paper copies of the spreadsheets providing benchmark results and descriptive materials requested in Sections J.1.4.2.3 and J.1.4.3.3 are to be provided separately as part of the benchmark materials in Tab 2 of the Technical Proposal.

Question 380. C.10.4.1 Clarification on availability of service - In reference to Amendment 4, C.10.4.1, note # 1, when can a bidder assume that the dim fiber will be available? Would it be available in the 1Q2007 (calendar) timeframe and is this connection for the National Lambda Rail (NLR) ?

Answer: The Government does not have a timeline or definite plans for NLR or provisioning dim fiber between GFDL and NLR. It is being considered and seems viable. Offerors requiring high speed networking, should plan on provisioning it. Any changes regarding

NLR or other high-speed networking options will be communicated and, as appropriate, provided as Government-furnished equipment.

Question 381. Section L, Page 21: L.15 Subcontracting Support: No small business is capable of manufacturing the required computer hardware and software, the offerors will either be large business manufacturers or integrators using a large business as a vendor/subcontractor for the computer material. The large business manufacturers will be able to address and meet the goals in paragraph L.15. The integrators will have a much more difficult task, because the acquisition of the computer material will be such a large percentage of the total contract value and the total subcontracted value. Would the Government consider reducing the Small Business Goals in paragraph L.15 to 5% of the subcontracted value?

Answer: No, the Government will not reduce the subcontracting goals cited in L.15. Offerors proposing goals that are less than those cited in L.15, are requested to include in its subcontracting plan proposal reason(s) for not meeting the goals and what efforts were made to achieve the cited goals.

Question 382. Lot I, CLIN 0001 specifies System Delivery and Installation as 1 LT for the life of the contract. We will be delivering and installing leased hardware to NOAA over the life of the contract and purchased equipment (mass storage) as required during the life of the contract. Considering that there will be multiple deliveries, 1 LT does not seem appropriate to cover multiple deliveries and installations. All other CLINS under Lot 1 are monthly payments. How does the Government suggest that CLIN 1 be used to account for multiple deliveries?

Answer: Answer to follow

Question 383. Deleted

Question 384. Does PRTN"s Computer Room have zinc whiskers?

Answer: Answer to follow

Question 385. In Question #125, the Government indicated that it was tasking an engineer to evaluate the current chiller configuration at PRTN to determine what can be done to allow any two chillers to operate together. Are findings from this analysis available?

Answer: